

Introduction to GIS

through Quantum GIS

Day 3: Data Day

offered by Valley Stewardship Network
taught and prepared by Legion GIS, LLC

March 2016

data



shapefiles



spreadsheets



satellites/GPS



planes/remote
sensing

processing

*this is technically the "Geographic
Information System" part...*



publishing



web-map

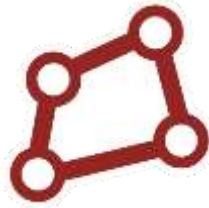


real map



mobile app

data



shapefiles



spreadsheets



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real map



mobile app

Who creates large datasets?

- Federal Government, many different agencies
 - USGS (United States Geological Survey)
 - USDA (United States Department of Agriculture)
 - NRCS (Natural Resources Conservation Service)
 - US Census Bureau
 - USACE (United States Army Corps of Engineers)
- State Governments (agency names vary from state to state)
 - DNR (Department of Natural Resources)
 - DOT (Department of Transportation)
- County-level
 - Land and Water Conservation Depts
 - Land Information Office
- Universities
- Private conservation/land management groups

General Collection Methods

- Manual data creation
 - GPS collection
 - Digitizing from imagery
- Remote Sensing
 - Aerial Imagery
 - LiDAR collection
 - Infrared Imaging
- Geoprocessing
 - Data derived from other data
 - Hillshades
 - Contour lines
 - Sinkhole locations

How to get it?

...the internet!

- Spatial data repositories
- Public Access FTP sites
 - They're not pretty, but they work!
- Or... find the right person to ask...
 - *"Do you distribute shapefiles for the flood zones that I see in your maps? If not, do you know where I can get them?"*
- Here's our growing list of good sources:
 - https://docs.google.com/document/d/1MmuemQHztSK5Xj4DNlbgvtXErRow_almZjQ_Wyz3N1Y/pub

Metadata

- Data about the data
- There are a few standard metadata formats
 - ISO 19115 and ISO 19139 (international standards)
 - FGDC (Federal Geographic Data Committee, US standards)
 - ArcGIS metadata (developed by ESRI)
- Comes in many shapes and sizes
 - Often in .xml files
 - Sometimes in .txt files
 - Maybe in an HTML file
 - Possibly non-existent
 - Or INSANELY EXISTANT!
 - http://www.nrcs.usda.gov/wps/portal/nrcs/detail/tx/home/?cid=nrcs142p2_053631

Questions? But not break time yet...

